

Air Products and Chemicals, Inc. • BASF Corporation • Bayer MaterialScience LLC

April 6, 2007

<u>Via Certified Mail</u> <u>Return Receipt Number 7006 2150 0000 7432 1736</u>

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TSCA Section 8(e) Coordinator
Document Control Officer
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
Ariel Rios Building; MC: 7407
1200 Pennsylvania Avenue, N.W.

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Re:

Washington, D.C. 20460-0001

Toxic Substances Control Act Section 8(e)

Dear TSCA Section 8(e) Coordinator:

The Ortho-Toluenediamine (o-TDA) Consortium (Consortium), c/o Ms. Robin Ruppel-Kerr, c/o Bergeson & Campbell, P.C., 1203 Nineteenth Street, N.W., Suite 300, Washington, D.C. 20036-2401, submits to the U.S. Environmental Protection Agency (EPA), pursuant to Section 8(e) of the Toxic Substances Control Act (TSCA), results of two studies with o-TDA (CAS No. 26966-75-6 (2687-25-4 and 496-72-0)) entitled Ortho-Toluenediamine (o-TDA) Determination of the Inhibitory Effect on the Cell Multiplication of Unicellular Green Algae and Ortho-Toluenediamine (o-TDA) Determination of the Acute Effect on the Swimming Ability of the Water Flea Daphnia Magna Straus. The Consortium is comprised of the following companies: Air Products and Chemicals, Inc., BASF Corporation, and Bayer Material Science, L.L.C. The studies were performed by BASF Aktiengesellschaft, Ludwigshafen, Germany.

This information is being submitted, as required under TSCA Section 8(e), within 30 calendar days after the date this information was obtained.

Algae: The study was conducted in a static system over 72 hours according to the Organization for Economic Cooperation and Development (OECD) Test Guideline 201.¹ The following concentrations were tested: 0, 10, 3, 1,

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OECD, Guideline for Testing Chemicals No. 201: Freshwater Alga and Cyanobacterial Growth Inhibition Test (Updated Guideline, adopted March 23, 2006), available at http://caliban.sourceoecd.org/vl=2609694/cl=11/nw=1/rpsv/ij/oecdjournals/1607310x/v1n2/s1/p1.



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0.3, 0.1, 0.03, 0.01 milligrams per liter (mg/L). In summary, the 72-hour biomass EC50 value² for o-TDA with *Desmodesmus subspicatus* was 0.040 mg/L based on the nominal concentration of the test substance and 0.021 mg/L based on the mean analytically determined concentration. The 72-hour growth rate EC50 value for o-TDA with *Desmodesmus subspicatus* was 0.94 mg/L based on the nominal concentration of the test substance and 0.38 mg/L based on the mean analytically determined concentration.

■ Daphnia: The study was conducted in a static system over 48 hours, consistent with OECD Test Guideline 202.³ The following concentrations were tested: 0, 10, 3, 1, 0.3, 0.1, 0.03, 0.01 mg/L. In summary, the 48-hour EC50 value⁴ for o-TDA with *Daphnia magna* was 1.73 mg/L based on the nominal concentration of the test substance. While the Consortium is submitting these preliminary Daphnia data to EPA in accordance with TSCA Section 8(e), the Consortium has not made a determination as to whether a substantial risk of injury to health or the environment is presented by these data.

Any subsequent information regarding the toxicity of this chemical from this study that is considered to present a substantial risk to human health or the environment under TSCA Section 8(e) will be submitted to EPA.

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The EC50 value is the mathematically (linear regression analysis) calculated concentration at which the cell division of the algae was inhibited by 50 percent compared to untreated control.

OECD, Guideline for Testing Chemicals No. 202: Daphnia sp. Acute Immobilisation Test (Updated Guideline, adopted April 13, 2004), available at http://caliban.sourceoecd.org/vl=2609694/cl=11/nw=1/rpsv/ij/oecdjournals/1607310x/v1n2/s2/p1.

The EC50 value is the concentration calculated at which 50 percent of the animals were immobile.



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If you have any questions, please contact Lynn L. Bergeson at (202) 557-3801 or lbergeson@lawbc.com.

Sincerely,

Kobin Kuppel-Kerr Robin Ruppel-Kerr

Robin Ruppel-Kerr, Chair

o-TDA Consortium

cc: o-TDA Consortium (via-e-mail)